

Title (en)
METHOD FOR REMOVING BASIC NITROGEN COMPOUNDS FROM EXTRACTED OILS BY USE OF ACIDIC POLAR ADSORBENTS AND THE REGENERATION OF SAID ADSORBENTS

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Application
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US 1427187 A 19870212

Abstract (en)
[origin: EP0278694A2] Basic nitrogen compounds (BNC) are selectively removed from solvent extracted oils by adsorption of said BNC's by solid acidic polar adsorbents. The oils are extracted using any of the common extraction solvents, such as furfural, phenol, SO₂, N-methyl-2-pyrrolidone (NMP), preferably NMP. The resulting raffinate, which contains the desirable oil fraction, has the BNC's present therein removed by adsorption thereof onto an adsorbent, characterized as being a solid, polar acidic adsorbent, exemplified by silica-alumina, a high alumina base amorphous cracking catalyst (such as manufactured by Ketjen/Akzo) and crystalline zeolite (such as H-Y zeolites) are effective adsorbents. The adsorbents may additionally contain fluorine or may contain up to 30 weight percent water. The adsorbents are regenerated by either purging with hydrogen at elevated temperature and pressure, or by washing the BNC saturated adsorbent with extraction process extraction solvent, such as NMP. Extracted oil raffinate treated with the adsorbent to remove BNC exhibit superior uninhibited oxidation stability as compared to untreated conventional hydrofined oil.

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